

REMARKS

In the Office Action, claims 1-24 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Gilhousen. In addition, claims 25-28 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Gilhousen in view of Lindqvist.

In this Response to Office Action, independent claims 1, 19 and 24 have been amended to now recite a system (claims 1 and 24) or method (claim 19) for locating a moveable object inside a structure having structural features characterized by a feature size. As amended, claims 1, 19 and 24 further recite that an emitter is coupled to the object for broadcasting a signal having a wavelength, λ , that is longer than the feature size. Support for these amendments is found in the specification on page 2 at lines 1-14, page 3 at lines 11-14 and 20-25, on page 9 at lines 1-7 and in the original claims.

Also in this Response to Office Action, claims 14, 16 and 18 have been cancelled without prejudice or disclaimer of subject matter and claims 11-13, 15, 17 and 20 have been amended to accommodate amendments to independent claims 1 and 19.

Amendments to the claims have been presented herein to improve the readability of the claims and to point out the features which distinguish the present invention over the cited art. Also, these amendments have been made to more clearly define the structure and cooperation of structure for the present invention. Claims 1-13, 15, 17 and 19-28 remain pending.

Rejections under 35 U.S.C. § 102(e)

As indicated above, the Examiner has rejected claims 1-24 under 35 U.S.C. § 102(e) as being anticipated by Gilhousen.

In this response, all independent claims (i.e. claims 1, 19 and 24) have been amended and now recite a system (claims 1 and 24) or method (claim 19) for locating a moveable object inside a structure having structural features that are characterized by a feature size. In addition, all independent claims also require an emitter that is coupled to the object for broadcasting a signal having a wavelength, λ , that is longer than the feature size. As indicated by the specification of the above-captioned application, the use of a wavelength, λ , that is longer than the feature size of a structure reduces signal path distortion caused by the structural features. Specifically, the specification indicates that this signal path distortion can include perturbations caused by diffraction and reflection and distortions arising from structural features that act as signal waveguides (see e.g. page 2 at lines 1-14). Examples of structural features are identified in the specification on page 2 at lines 1-14 and include rooms, hallways and staircases. In addition, an exemplary frequency of 27Mhz is disclosed for use in the present invention. Functionally, the reduction of signal path distortion increases the accuracy of locating systems (claims 1 and 24) and methods (claim 19) which rely on phase measurements to calculate location.

No such structure or cooperation of structure is either taught or suggested by Gilhousen. Specifically, the Gilhousen reference does not disclose the use of a signal having a wavelength, λ , that is longer than a feature size of a structure. Instead, and

quite unlike the present invention, Gilhousen proposes a scheme for locating an object that employs locating signals having a frequency in the range of 824 – 849 Mhz (see Gilhousen, Column 2, lines 11-21). These frequencies correspond to signal wavelengths that are less than approximately one-half meter in length, and as a consequence, the Gilhousen teaching is limited to the use of signals having wavelengths that are clearly shorter than the feature size of a structure.

For at least the reasons cited above, Attorney for Applicant respectfully contends that independent claims 1, 19 and 24, as amended, are not anticipated by Gilhousen. Further, since pending claims 2-13, 15, 17, 20-23 and 25-28 each depend either directly or indirectly from independent claim 1, 19 or 24, they are likewise allowable. For the reasons set forth above, Applicant believes that the basis for rejecting claims under 35 U.S.C. § 102(e) has been overcome and the rejections should be withdrawn.

Rejections under 35 U.S.C. § 103(a)

In the Office Action, claims 25-28 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Gilhousen in view of Lindqvist.

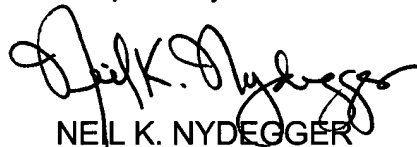
As indicated above, all independent claims (i.e. claims 1, 19 and 24) have been amended and are now directed to subject matter which is patentably distinguishable from Gilhousen. With these amendments, Attorney for Applicant respectfully contends that the teaching that is lacking in Gilhousen is not provided by Lindqvist. Specifically, Lindqvist fails to teach or suggest a system (or method) for locating an emitter that is positioned in a structure using phase information from an emitter signal having a wavelength, λ , that is longer than a feature size of a structure.

In view of the arguments presented above for distinguishing independent claim 24 of the present invention from Gilhousen and Lindqvist, Attorney for Applicant respectfully contends that independent claim 24 is now allowable. Accordingly, since rejected claims 25-28 each depend directly from independent claim 24, these claims are also allowable. For the reasons set forth above, Applicant believes the basis for rejecting claims under 35 U.S.C. § 103(a) has been overcome and the rejections should be withdrawn.

In conclusion, Applicant respectfully asserts that claims 1-13, 15, 17 and 19-28 are patentable for the reasons set forth above, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully requested. The Examiner is requested to call the undersigned at 619-688-1300 for any reason that would advance the instant application to issue.

Dated this 11th day of August, 2004.

Respectfully submitted,



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CERTIFICATE OF MAILING UNDER 37 CFR § 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Mail Stop Non-Fee Amendments, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 11th day of August, 2004.

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